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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/724,131

12/01/2003

Shun-Sheng Cheng

MR1957-811

1229

4586 7590 08/01/2007  
ROSENBERG, KLEIN & LEE  
3458 ELLICOTT CENTER DRIVE-SUITE 101  
ELLICOTT CITY, MD 21043

EXAMINER

BOLLINGER, DAVID H

ART UNIT

PAPER NUMBER

3653

MAIL DATE

DELIVERY MODE

08/01/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/724,131	<b>Applicant(s)</b> CHENG, SHUN-SHENG	
	<b>Examiner</b> David H. Bollinger	<b>Art Unit</b> 3653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 5-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

1. Applicant's election of Group I, claims 1 through 4, in the reply filed on 24 July 2006 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 through 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zepeda et al in view of Kawauchi et al.

Zepeda et al teach a double starwheel unit (see Figures 22 and 23) comprising: a hub or sleeve 264 (Figure 22) having upper, lower and middle portions where the middle portion is disposed between the upper and lower portions and is thicker (larger in diameter) than the upper and lower portions; first and second starwheels 205 parallel-arranged and having first and second external teeth and first and second internal edges respectively having a plurality of projections (see Figure 18) protruding inwardly and arranged symmetrically.

Zepeda et al fails to teach the hub or sleeve having a central hole as claimed.

Kawauchi et al teach a starwheel unit 76 (see Figure 7A) having a hub or sleeve 76A provided with a central hole 74 to mount the starwheel unit 76 onto a shaft.

In view of the teachings of Kawauchi et al, it would have been obvious to one of ordinary skill in the art to provide the hub or sleeve of Zepeda et al with a central

hole for mounting the starwheel unit to a shaft rather than providing the shaft as part of the hub as Zepeda et al appears to show. This is merely the substitution of one known manner of connecting the hub to the shaft for mounting in the device of intended use.

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zepeda et al in view of Kawauchi et al as applied to claims 1 through 3 above, and further in view of Kamijo.

Zepeda et al, as modified by Kawauchi et al, fails to teach the first and second starwheels have teeth with a conjunction point connecting each of the first and second starwheels to sheet-like substrate.


Kamijo teaches that in the making of such starwheels the starwheel teeth include a conjunction point, which connects the starwheels to a sheet-like substrate (see Figure 7 and column 6 lines 63-67).

In view of the Kamijo, it would have been obvious to one of ordinary skill in the art to have the starwheels of Zepeda et al, as modified by Kawauchi et al, provided with a conjunction point connecting the starwheels to a sheet-like substrate since Kamijo teaches that this is a known way of making such starwheels.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David H. Bollinger whose telephone number is 571-272-6935. The examiner can normally be reached on Tuesday through Friday from 9:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Mackey, can be reached on 571-272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
David H. Bollinger  
Primary Examiner 7/27/07  
Art Unit 3653